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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/703,869	11/02/2000	Masafumi Baba	001461	2292

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EXAMINER
POON, KING Y

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/703,869	BABA ET AL.	
	Examiner	Art Unit	
	King Y. Poon	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-6 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-6 is/are rejected.

7)☒ Claim(s) 6 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 02 November 2000 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2. The disclosure is objected to because of the following informalities: "device control file 8," described in the specification, for example, on page 7, line 1, and on page 9, line 33, is also being described as "device control filter 8" such as on page 6, line 23, on page 9, line 17, and fig. 1.

Appropriate correction is required.

Claim Objections

3. Claim 6 is objected to because of the following informalities: The limitation of "device control filter" on line 3, has not been previously claimed. Therefore, "said device control filter" in claim 3 would be more clear if change to, for example, "a device control filter." Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (US 6,213,652) in view of Schoenzeit et al. (US 5,619,624).

Regarding claim 1: Suzuki teaches a processing system (the job scheduling device 12 fig. 1, column 14, lines 65-67, column 15, lines 1-5, and job processing section of the job execution section, column 27, lines 5-10) comprising: a processing unit (the job scheduling device) for registering a print request command (processing request, column 27, lines 48-49) of an accepted print job (column 24, line 59), storing a print file (the group of data that is identified by the job number, column 24, lines 15-23, that is to be stored in a print queue, column 26, lines 65-67, column 27, lines 1-2) of the print job and reading out (transferring a job stored in the queue, column 15, lines 1-5) print data (a print job inherently consists of print data) of the file (the group of data that is identified by the job number, column 24, lines 15-23) in accordance with the print request command (the document that has the processing request is to be processed by the job execution section, column 27, lines 61-66, since the processing of the document by the job execution section requires the read of the document from the queue, column 15, lines 1-5, the read out of the document data is performed in accordance with the print command request) and a device control filter (job processing section) for analyzing and processing (converts a print format, column 27, lines 5-10, converting a print format of the job requires analyzing and processing the print format of the job) the print data read out by the processing unit so as to output the print data

so analyzed and processed to a printer, (job output section, column 27, lines 8-10), the processing system being characterized in that; the processing unit (job scheduling device, column 14, lines 66-67, column 15, lines 1-5) reads out sequentially (in the order in which the processing of a received document is accepted) the print data in accordance with the print request command (the document that has the processing request are to be processed by the job execution section, column 27, lines 61-66, since the processing of the document by the job execution section requires the read of the document from the queue, the read out of the document data is performed in accordance with the print command request) for supply to the device control filter (the document data is supplied to the job processing section, column 15, lines 1-5, column 27, lines 5-10) as a part of the file is started to be stored (once the document (a document is part of a print job) is accepted, and stores in a print queue 22, the printing processing (by the job execution section) is started before all of the document are received, column 26, lines 40-46, column 27, lines 5-20, fig. 12) and then completes storing the file. (The process is repeated until all the documents of the print job is stored for processing, column 27, lines 54-60)

Suzuki does not teach the job processing sections and the processing unit (job scheduling device) are implemented in a single unit.

Schoenzeit, in the same area of using processing system (image server, column 5, lines 35-40, fig. 3) for receiving print jobs in a printer queue (RIP queue, column 5, lines 47-46-60) to be read out and processed by an job execution section, (RIP, column 5, lines 60-66), teaches the system of individual modules for: receiving prints jobs, (RIP queue, fig. 3), storing the print job,

(RIP queue, fig. 3) reading the print job, (selector, fig. 3) processing the read print data, (RIP, fig. 3) and sending the processed print data to a printer, (output queue, fig. 3) can be implemented as a single processing unit. (Server, column 5, lines 35-40, fig. 3)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Suzuki's processing system to include: implementing the job processing sections and the processing unit into a single processing unit. (Processor)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Suzuki's processor by the teaching of Schoenzeit because of the following reasons: (a) it would have allowed the document data to be processed directly in the processor and thereby, reduced image processing in the printer or eliminating providing extra circuits for processing the document data before it is being sent to the printer; (b) reducing the image processing in the printer/job execution section would have lower the cost of the printer/job execution section as well as reduces the size of the printer/job execution section; and (c) it would have simplified the complexity of the system by allowing the print data processing to be carried out in a single processing unit instead of using two different processing units.

Regarding claim 2: Suzuki teaches wherein the processing unit (job scheduling device, column 14, lines 66-67, column 15, lines 1-5) informs (note) the device control filter (job processing section, column 27, lines 5-10) that the storing of the file has been completed, and wherein the device control filter analyzes and processes (converts a print format, column 27, lines 5-10, converting a print format of the job requires analyzing and processing the print format of the

job) for output until the end of print data of the file. (The printing process is repeated until all the documents of the print job is being processed, column 27, lines 54-60).

Note: Column 27, lines 60-67, teaches the job processing section receives document from printer queue 22 for processing. Column 15, lines 59-67, teaches document stored in the queue to be processed by the job processing section includes final document information. Since every time the job processing section receives this final document information, all the documents of the print job must have already been stored in the queue. Therefore, the final document information is equivalent to information indicating storing of the file (print job file) has been completed.

Regarding claim 3: Suzuki teaches wherein the processing unit (job scheduling device, fig. 1) can accept and register a plurality of print jobs, (jobs, column 27, lines 65-67) and wherein the device control filter (job execution section, column 27, line 6) can analyze and process print data (converts a print format, column 27, lines 5-10, converting a print format of the job requires analyzing and processing the print format of the job) of respective print files (the group of data that is identified by the job number, column 24, lines 15-23, that is to be stored in a print queue, column 26, lines 65-67, column 27, lines 1-2) read out in accordance with the print request command (the document that has the processing request are to be processed by the job execution section, column 27, lines 61-66, since the processing of the document by the job execution section requires the read of the document from the queue, the read out of the document data is performed in accordance with the print command request) for output to a plurality of different printers (job output sections, column 27, lines 6-12).

Regarding claim 4: Suzuki teaches a processing system, (job scheduling device, fig. 1, and job processing sections, column 27, lines 5-10) comprising: a processing unit (the job scheduling device, fig. 1) for registering a print request command (processing request, column 27, lines 48-49) of an accepted print job (column 24, line 59), storing a print file (the group of data that is identified by the job number, column 24, lines 15-23, that is to be stored in a print queue, column 26, lines 65-67, column 27, lines 1-2) of the print job and reading out (transferring a job stored in the queue, column 15, lines 1-5) print data (a print job inherently consists of print data) of the file (the group of data that is identified by the job number, column 24, lines 15-23) in accordance with the print request command (the document that has the processing request is to be processed by the job execution section, column 27, lines 61-66, since the processing of the document by the job execution section requires the read of the document from the queue, column 15, lines 1-5, the read out of the document data is performed in accordance with the print command request) whereby the print data read out by the processing unit is analyzed and processed (converts a print format, column 27, lines 5-10, converting a print format of the job requires analyzing and processing the print format of the job) for output to a printer, (job output section, column 27, lines 8-10) the processing system being characterized in that; the processing unit (the job scheduling device, fig. 1) puts the print job in a print wait condition, (e.g., branching from 1203 to acceptance document, fig. 12) releases the print job from print wait condition (e.g., placing the document/part of a print job in processing request status, 1209, fig. 12) by selecting the print request command (printing request, column 27, lines 47-50) in accordance with a specific

condition (e.g., the condition that the job execution section is possible to accept printing request, 1203, fig. 12) for determining an output sequence (the flow chart of fig. 12 is for determining an output sequence. Therefore, all the conditions shown in fig. 12 are conditions for determining an output sequence) and reads out print data (column 15, lines 1-5) of the released print job (the document of a print job that is being placed in processing request status, fig. 12) for supply to the printer.

Suzuki does not teach the processing system is a single unit. (Processor)

Schoenzeit, in the same area of using processing system (image server, column 5, lines 35-40, fig. 3) for receiving print jobs in a printer queue (RIP queue, column 5, lines 47-46-60) to be read out and processed by an job execution section, (RIP, column 5, lines 60-66), teaches the system of modules used for: receiving prints jobs, (RIP queue, fig. 3), storing the print job, (RIP queue, fig. 3) reading the print job, (selector, fig. 3) processing the read print data, (RIP, fig. 3) and sending the processed print data to a printer, (output queue, fig. 3) can be implemented as a single processing unit. (Server, column 5, lines 35-40, fig. 3)

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Suzuki's processing system to include: implementing the job scheduling device and other units for processing print job data, such as the job processing sections, column 27, lines 5-10, of Suzuki, into a single processing unit. (Processor)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Suzuki's processor by the teaching of Schoenzeit because of

the following reasons: (a) it would have allowed the document data to be processed directly in the processor and thereby, reduced image processing in the printer or eliminating providing extra circuits for processing the document data before it is being sent to the printer; (b) reducing the image processing in the printer/job execution section would have lower the cost of the printer/job execution section as well as reduces the size of the printer/job execution section; and (c) it would have simplified the complexity of the system by allowing the print data processing to be carried out in a single processing unit instead of using two different processing units.

Regarding claim 5: Suzuki teaches wherein the processing unit (job scheduling device, fig. 1) does not release the print job from the print wait condition in a case where the analysis and process of print data is recognized as being under way. (E.g., no of 1203, fig. 12, column 27, lines 13-20)

Regarding claim 6: Suzuki teaches wherein the processing unit can read out print data of the file for supply to a device control filter (job execution section, column 15, lines 5-10) only when a requester (user, column 26, lines 45-55) of printing releases the print job from a hold condition (hold, column 26, line 47-48) in a case where the print job is accepted in the hold condition. (Designation of job hold, column 26, lines 47-48)

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sugiura (US 6,047,111) teaches a print job processing system for storing print data using queues.

Hower, Jr. et al. (US 5,467,434) teaches a print job processing system for storing print data using queues.

Bain et al. (US 5,287,434) teaches a print job processing system for storing print data using queues.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892 or to Supervisor Mr. David Moore whose phone number is (703) 308-7452.

July 23, 2003

King Yan Poon